

Date: Wed, 31 Mar 93 04:30:02 PST
From: Packet-Radio Mailing List and Newsgroup <packet-radio@ucsd.edu>
Errors-To: Packet-Radio-Errors@UCSD.Edu
Reply-To: Packet-Radio@UCSD.Edu
Precedence: Bulk
Subject: Packet-Radio Digest V93 #85
To: packet-radio

Packet-Radio Digest Wed, 31 Mar 93 Volume 93 : Issue 85

Today's Topics:

 AX.25
 G8BPQ 4.06E
 Info on Digikey?
 Looking for 900 MHz antenna mfg.
 Looking for IP Coordinator for SE MI
 MFJ-1278
 Packet-Radio Digest V93 #83
 Packet with hp48?? has it been done??
 request tips on Alinco DR599 dualbander
 UART identifier (4 msgs)
 Using UNIX & packet? (4 msgs)

Send Replies or notes for publication to: <Packet-Radio@UCSD.Edu>
Send subscription requests to: <Packet-Radio-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Packet-Radio Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/packet-radio".

We trust that readers are intelligent enough to realize that all text
herein consists of personal comments and does not represent the official
policies or positions of any party. Your mileage may vary. So there.

Date: Mon, 29 Mar 1993 20:55:06 GMT
From: usc!elroy.jpl.nasa.gov!sdd.hp.com!hpscit.sc.hp.com!hplextra!hpfcs!hplvec!
tcline@network.UCSD.EDU
Subject: AX.25
To: packet-radio@ucsd.edu

> In rec.radio.amateur.packet, denny@cyclone.cs.odu.edu (William Denny) writes:
>
> Hello,
> I need to compare and contrast AX.25 and X.25.
> I need the full spec. on AX.25.
> Where is it available?

> On internet bye ftp?
>
> Thanks!
> denny
> KC4VVR

I have uploaded the "AX.25 Amateur Packet-Radio Link-Layer Protocol, Version 2.0 October 1984" specification as ax25.doc in /hamradio/packet/ on ucsd.edu . If you have problems getting the file, I'll be pleased to email it to you.

I also offer to email anybody any combination of the following files:

faq_ham = rec.radio.amateur.misc FAQ
faq_packet = rec.radio.amateur.packet FAQ
packet.tut = A "packet tutorial"
new_packet = packet newcomers info

Email me.

Hope this helps!

73

Ted Cline, N0RQV	VXI Systems Division
ted_cline@hplsl.lvlld.hp.com	Hewlett-Packard, M/S CU-326
tcline@hplslx.lvlld.hp.com	815 14th Street SW
VOICE: (303) 679-2352	P.O. Box 301
FAX: (303) 679-5971	Loveland, CO 80537 USA

Date: 31 Mar 1993 00:27:55 GMT
From: usc!elroy.jpl.nasa.gov!kilroy!szeto@network.UCSD.EDU
Subject: G8BPQ 4.06E
To: packet-radio@ucsd.edu

In article <Angelo_Glorioso_Iii.1r63@agwbbs.new-orleans.LA.US>
Angelo_Glorioso_Iii@agwbbs.new-orleans.LA.US (Angelo Glorioso Iii) writes:
>
> I heard that G8BPQ 4.06(E) has been released. I dont have access to Archie
>so I have to ask for help in finding the files.. Does anyone know the FTP
>site for the new version of BPQ???
>

A copy is on ucsd.edu in ~pub/hamradio/packet/tcpip/incoming/bpq406e.zip.

73,

==> jim.

James T. Szeto	(KC6WIK)	Internet: szeto@kilroy.jpl.nasa.gov
MARK-IV Interferometer		Packet : kc6wik@w6vio.#soca.ca.usa.na
Jet Propulsion Laboratory		Office : (818) 354-4685
Atmospheric and Oceanographic Sciences		Fax : (818) 354-5148
M/S 183-301		
4800 Oak Grove Drive		
Pasadena, CA 91109		

Imagination is the one weapon in the war against reality.
-- Jules de Gaultier

Date: 30 Mar 93 14:53:49 GMT
From: opel!slc1!vk2bea!michael@uunet.uu.net
Subject: Info on Digikey?
To: packet-radio@ucsd.edu

In article <g0#5r#_@rpi.edu> abelson@rpi.edu writes:
>Does anyone have any information (address and/or Telephone) on
>a company called Digikey?

1-800 DIGIKEY

--
Michael Katzmann > Broadcast Sports Technology Inc.
~~~~~ < Crofton, Maryland. U.S.A  
Amateur Radio Stations: >  
NV3Z / VK2BEA / G4NYV / AAR3VK < opel!vk2bea!michael@uunet.uu.net

-----  
Date: 30 Mar 93 23:59:57 GMT  
From: olivea!hal.com!darkstar.UCSC.EDU!cats.ucsc.edu!matthew@uunet.uu.net  
Subject: Looking for 900 MHz antenna mfg.  
To: packet-radio@ucsd.edu

I am looking for pointers to makers of antennas suitable for 902-928 MHz  
apread spectrum work. preferably ones targeted for the amateur market,  
rather than the commercial market (cost IS an issue). I have some designs,  
but I don't want to get into the business of making antennas.

please mail replies.

-matthew kaufman, ka6sqg  
matthew@echo.com

-----  
Date: Tue, 30 Mar 1993 18:01:53 GMT  
From: usc!zaphod.mps.ohio-state.edu!saimiri.primite.wisc.edu!caen!nigel.msen.com!  
ilium!gdls!turini@network.UCSD.EDU  
Subject: Looking for IP Coordinator for SE MI  
To: packet-radio@ucsd.edu

Subject says it all. I'm looking for an IP address. Had the name once, but  
lost it.

Thanks

Bill

--

Bill Turini, KA4GAV  
Computer Sciences Corporation  
6000 E. 17 Mile Road  
Sterling Heights, MI 48313

Chief, Technical Systems  
turini@gdls.com  
(313) 825-8810

-----  
Date: Tue, 30 Mar 1993 18:39:18 GMT  
From: mvb.saic.com!ast.saic.com!seymour@network.UCSD.EDU  
Subject: MFJ-1278  
To: packet-radio@ucsd.edu

In article <C4nz0u.Ep4@ucdavis.edu> ez006683@othello.ucdavis.edu (Daniel D. Todd)  
writes:

>kmooss@rsal.gatech.edu (Karen Moss) writes:  
>: Hello, I am a newcomer to the world of TNC's and I have recently  
>: connected a MFJ-1278 to my ICOM 745 Shortwave radio. What I need  
>: now is some software that is easy to use that allows morse code,  
>: RTTY, amtor, etc to be decoded using my MFJ-1278. Is there some  
>: shareware that can be ftp'ed from somewhere. Any suggestions would  
>: be much appreciated. Please send suggestions by e-mail. Thanks,  
>:

I believe what you need is a communications program. I like mskermi.  
You can get it from oak.oakland.edu in directory /pub/msdos/kermit. The  
file is msker312.zip.

--

Ken Seymour  
seymour@ast.saic.com  
KD6PSW/AG

-----  
Date: 30 Mar 93 21:45:08 GMT  
From: news-mail-gateway@ucsd.edu  
Subject: Packet-Radio Digest V93 #83  
To: packet-radio@ucsd.edu

Dear Tim;

There are several types of systems available with the speed and connectivity that you are in need of, all of which operate in the 902-928 Mhz Spectrum Range. I am not aware of the available frequency spectrum that is available in your part of the world, but I can offer you a source for equipment that would act as a "Wireless" Ethernet bridge that typically has a range of 800-3000 feet indoors, and 5-20 miles line of sight outdoors.

All that is required is a bridge unit at each site connected to the existing Ethernet backbone, and an appropriate antenna aimed at the other unit.

You may obtain more information from:

Mr. Bryan L. Turbow  
Mobilenetics, Incorporated  
9764 W. Olympic Blvd.  
Beverly Hills, California  
90212  
Telephone: (310) 284-8937  
Facsimile: (310) 284-8947

-----  
Date: Tue, 30 Mar 1993 19:35:42 GMT  
From: saimiri.primate.wisc.edu!zaphod.mps.ohio-state.edu!uwm.edu!ux1.cso.uiuc.edu!news.iastate.edu!pv1450.vincent.iastate.edu!monty@ames.arpa  
Subject: Packet with hp48?? has it been done??  
To: packet-radio@ucsd.edu

In <weaverb.733453520@spot.Colorado.EDU> weaverb@spot.Colorado.EDU (Brian Weaver) writes:

>morgdw@saturn.wwc.edu (DWIGHT CLINTON MORGAN) writes:

>>If so I would like to get the information.

> Yes, it's been done. Go ftp yourself a terminal program for the  
>hp 48 and build yourself a hp<-->TNC cable with a null modem in  
>it and blam, you're on packet.

>--

>Brian Weaver (303)786-0021           University of Colorado at Boulder  
>weaverb@boulder.Colorado.EDU       (internet)  
>KD6CFA@N0ARY.#NOCAL.CA.USA.NA     (packet radio)  
>PGP Public key available via finger or request.

I do this every day!!! The wife and I get on a MARS BBS at School, where  
they have a nice tower at 100 feet. This means that I can put the entire  
packet setup in my pocket and go to class without a problem.

Works nice for trips too (and mobile)

Need any info just ask.....

Joel Montgomery  
monty@iastate.edu

-----  
Date: Tue, 30 Mar 1993 18:43:04 GMT  
From: decctrl!news.crl.dec.com!rdg.dec.com!irnbru.enet.dec.com!  
luursema@decwrl.dec.com  
Subject: request tips on Alinco DR599 dualbander  
To: packet-radio@ucsd.edu

I just purchased the Alinco DR599 2m/70cm FM set.

I intend to use it for Packet Radio. Now I like to know as much as  
possible about this set, so anyone who is using it please respond.

Specifically for packet, I would like to know the Microphone input  
levels for a good modulation.

Also, I would like to know what the remote-control microphone (standard  
on US models) sends to the set. (is it DTMF tones to pin 6 of the mic  
plug?). What features can be selected by the programming jumper  
resistors R30-R35 (not sure about the numbers; out of the top of my  
head...) at the back of the display module? How are they set on the US  
model?

I already found out the pinning of the Mic. connector (just by opening  
the microphone), to find out it hasn't audio output there. It has only

separate VHF+UHF Audio output sockets on the back. There also seems no way of remote controlled selection of the band to transmit on. This would make dual band use of packet not easier.

I have found out quite a lot of extra features that are not documented in the preliminary user manual I got with my set. Is there anyone that has a better manual?

If anyone is interested in the extra features I found, I'll type it in and mail it, or post it if there is enough demand.

Any help appreciated.

73s,

Rob, PE1GOX in GM land.

--

Digital Equipment Corporation, Ayr, Scotland.

Internet: luursema@tizer.enet.dec.com

Easynet: TIZER::LUURSEMA

-----  
Date: 30 Mar 93 22:14:09 GMT  
From: news-mail-gateway@ucsd.edu  
Subject: UART identifier  
To: packet-radio@ucsd.edu

I just uploaded a UART identifier to ucsd.edu, in file hamradio/packet/tcpip/incoming/is16550.zip.

Please Brian, put it in what directory you think most suitable.

73 Costas

-----  
| Dr. K. Krallis, SV1XV \*  
| -----  
| Internet: kkrallis@leon.nrcps.ariadne-t.gr [143.233.2.1]  
| Packet radio: sv1xv@sv1uy.ath.grc.eu  
| AMPRnet: sv1xv@sv1xv.ampr.org [44.154.1.11]  
| Snail Mail: P.O.BOX 3066, GR-10210 Athens, GREECE  
| -----  
-----

Date: Tue, 30 Mar 1993 23:15:53 GMT  
From: qualcom.qualcomm.com!servo.qualcomm.com!karn@network.UCSD.EDU  
Subject: UART identifier  
To: packet-radio@ucsd.edu

Note that my NOS code automatically detects a 16550A when it is present.  
The "asy" command will tell you as part of the per-line summary whether  
a 16550A was detected.

Phil

-----  
Date: Tue, 30 Mar 1993 19:54:04 GMT  
From: usc!wupost!uhog.mit.edu!eddie.mit.edu!news.intercon.com!psinntp!gdstech!  
gdstech!bat@network.UCSD.EDU  
Subject: UART identifier  
To: packet-radio@ucsd.edu

Windows reportedly has an MSD.EXE which will tell you UART stuff.  
But, the experts say any software can be fooled, that there  
is no substitute to looking right at the chip and reading its label.

--

\*-----\*  
\* Pat Masterson D12-25 | KE2LJ@KC2FD \*  
\* Grumman Data Systems | 516-346-6316. \*  
\* Bethpage, NY 11746 | bat@gdstech.grumman.com \*

-----  
Date: Wed, 31 Mar 1993 01:54:02 GMT  
From: usc!sdd.hp.com!ux1.cso.uiuc.edu!news.cso.uiuc.edu!uxa.cso.uiuc.edu!  
btbg1194@network.UCSD.EDU  
Subject: UART identifier  
To: packet-radio@ucsd.edu

In article <BAT.93Mar30145404@gdstech.GRUMMAN.COM> bat@gdstech.GRUMMAN.COM (Pat  
Masterson) writes:

> Windows reportedly has an MSD.EXE which will tell you UART stuff.  
> But, the experts say any software can be fooled, that there  
> is no substitute to looking right at the chip and reading its label.

>--

>\*-----\*  
>\* Pat Masterson D12-25 | KE2LJ@KC2FD \*  
>\* Grumman Data Systems | 516-346-6316. \*  
>\* Bethpage, NY 11746 | bat@gdstech.grumman.com \*

Let me put in a plug for MSD.EXE... it is new with Windows 3.1, (I think)



and comes in the Windows directory, but it will run standalone under DOS. It's name stands for MS Diagnostics, and it does just about everything that these PC info programs do... detects IRQ status, LPT status, your CPU type, your BIOS type, resident TSRs, memory usage, COM port status, ... (when I say status, I don't mean a dynamic status of signals on the port, etc., just whether or not it can detect the things as present, ...)

KB8CNE, Brad Banko

--

Brad Banko; Dept of Physics; U of Illinois; b-banko@uiuc.edu

=====

See one. Do one. Teach one.

73 de kb8cne @ n9lnq.il

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Date: Tue, 30 Mar 1993 16:27:31 GMT

From: usc!sdd.hp.com!swrinde!emory!kd4nc!ke4zv!gary@network.UCSD.EDU

Subject: Using UNIX & packet?

To: packet-radio@ucsd.edu

In article <1993Mar29.154951.28974@sco.com> jayh@sco.com (Jay Heiser, WB8TFC) writes:

>Since I work for a company that packages UNIX for Intel-based systems,  
>I'm curious about the possibility of using a UNIX system for my packet  
>host. There'd be lots of advantages to it -- it could be doing a bbs  
>or whatever, and I could still do my income tax at the same time and  
>be accessing my computer at work. Multitasking -- wheee!

Some of us are using UNIX hosts for packet, but it's not completely simple.

>I haven't done anything with packet for quite a while. I don't know if  
>I need to apologize for this, but taking 15 minutes for a 3 sentence  
>QSO at 300 baud with somebody 4 hops away who types about 5wpm wasn't  
>my idea of a stimulating hobby. I'm glad somebody stuck with it, though,  
>to advance the state of the art.

Isn't that the truth. Keyboard QSOs are a drag, but letting the machines patiently transfer mail and files isn't so bad. High speed modems, like the 56 kb GRAPES units, make even interactive use tolerable.

>So is it possible to use a commercial version of tcp/ip w/o software mod?

No. Here's the rub. First the commercial versions don't know about AX25, and second, the timing parameters are way off from those needed for radio

networks. Since the native TCP/IP implementations can't handle the link level dialogues of AX25, you have to write a device driver that can do this. The timing parameters are often a harder nut since they're often coded in. Unless you have source, which \*you\* may have, changing them to a level that won't cause "packet storms" on the radio net is out of the question.

>I see that we've got a class A addressing scheme, 44.xx.xx.xx. I've  
>heard the word 'PPP' mentioned. TNCs are just modems -- is it possible  
>to configure yourself with an IP address, connect a serial port to the  
>TNC, configure PPP, connect your TNC to an HT, and communicate?

A TNC is \*not\* just a modem. It is also a PAD, a packet assembler disassembler, and also an asynchronous to synchronous HDLC converter. It \*may\* also implement the AX25 link level protocol through a host mode interface that you must adapt your UNIX code to interact with, or the simpler KISS handler. It's \*possible\* to use TCP/IP via the SLIP or PPP protocols over an ordinary TNC running the traditional AX25 firmware, but link setup is not automatic and you'll need to write scripts, similar to dialer scripts, to set up connections. Responding to \*incoming\* connections is a nasty problem. The better approach is to use the KISS firmware and move the AX25 link level code into the device driver where your computer will have more intimate control. Even better is to use a TCP/IP package where all this is integrated for you, such as the KA9Q NOS package. Even this is not an optimal solution because you don't intimately connect with your native TCP/IP services, and KA9Q code doesn't give you the network transparency you'd like on a multitasking machine.

The \*best\* practical solution is to install a DOS box running KA9Q code as a \*gateway\* between your ethernet and the radio network. Since this code understands radio and ethernet networks, and is configurable as a router, it will allow you to use your native TCP/IP on your UNIX machine to best advantage. It has source quench capabilities to keep the packet storms off the radio and it understands AX25. You won't be able to do link level only AX25 connects from your UNIX host, so you'll be cut off from the non-TCP/IP packet world, but the TCP/IP parts will work correctly. You can move to the DOS box keyboard to do link level only connections to BBS systems and keyboarders because KA9Q code supports both types of sessions, and it can handle multiple instances because it is itself a lightweight multitasker. This is the method I use to get my UNIX box on the air.

Gary

--

|                             |  |              |                          |
|-----------------------------|--|--------------|--------------------------|
| Gary Coffman KE4ZV          |  | You make it, | gatech!wa4mei!ke4zv!gary |
| Destructive Testing Systems |  | we break it. | uunet!rsiatl!ke4zv!gary  |

534 Shannon Way                    |      Guaranteed!                    |      emory!kd4nc!ke4zv!gary  
Lawrenceville, GA 30244           |                                    |                                    |

-----  
Date: 30 Mar 1993 20:04:35 GMT  
From: agate!remarque.berkeley.edu!marc@ames.arpa  
Subject: Using UNIX & packet?  
To: packet-radio@ucsd.edu

In article <1993Mar30.162731.6508@ke4zv.uucp> gary@ke4zv.UUCP (Gary Coffman) writes:

>  
>No. Here's the rub. First the commercial versions don't know about AX25,  
>and second, the timing parameters are way off from those needed for radio  
>networks. Since the native TCP/IP implementations can't handle the link

There is an AX.25 driver available somewhere on the net (try ucsd.edu) for Sun boxes. You link it into the kernel and it runs. My understanding is that it talks straight to a KISS TNC, though I haven't played with it myself.

>The \*best\* practical solution is to install a DOS box running KA9Q  
>code as a \*gateway\* between your ethernet and the radio network.

This is what I do too. By changing ~ dozen lines in sendmail.cf, I implemented an e-mail gateway from my UNIX box to the AMPR net. Mail comes in on the modem, and goes out the TNC via a TCP connection from sendmail. Very nice!

I also put a MUD (multi-user dungeon) program on the UNIX machine and the hams connected and played together.

--  
Marc de Groot (KG6KF) San Francisco |  
Internet: marc@kg6kf.ampr.org        |                    "Penny for your thoughts, twenty  
UUCP: ..!uunet!hoptoad!noe!marc     |                    cents for your paradigm."  
Packet radio: KG6KF @ K3MC           |

-----  
Date: 30 Mar 93 16:16:47 CST  
From: timbuk.cray.com!hemlock.cray.com!andyw@uunet.uu.net  
Subject: Using UNIX & packet?  
To: packet-radio@ucsd.edu

In article <1993Mar30.162731.6508@ke4zv.uucp>, gary@ke4zv.uucp (Gary Coffman) writes:

```
> [tons of good stuff deleted..]
> it understands AX25. You won't be able to do link level only
> AX25 connects from your UNIX host, so you'll be cut off from
> the non-TCP/IP packet world, but the TCP/IP parts will work
> correctly. You can move to the DOS box keyboard to do link
> level only connections to BBS systems and keyboarders because
> KA9Q code supports both types of sessions, and it can handle
> multiple instances because it is itself a lightweight multitasker.
> [...]
```

This isn't completely true. There is a ax25 <-> tcp protocol bridge available that converts incoming ax25 connections into tcp connections and allows tcp only machines to initiate ax25 sessions. It's not in the standard NOS, but the source code changes & some docs are available..

Examples in use here in Mpls include :-

A KA-Node clone running under Unix.  
A PBBS mail interface running under Unix (written in Perl).  
Ax.25 access to the callsign server running under Unix.  
Ax.25 access to the tcp converse bridge.  
etc etc

I've got a shar file lying around somewhere if folks are interested.

--

andyw.     NØREN/G1XRL

andyw@aspen.cray.com     Andy Warner, Cray Research, Inc. (612) 683-5835

-----

Date: Tue, 30 Mar 1993 21:12:43 GMT  
From: usc!elroy.jpl.nasa.gov!swrinde!zaphod.mps.ohio-state.edu!sdd.hp.com!ncr-sd!  
ncrcae!ncrhub2!law7!jra@network.UCSD.EDU  
Subject: Using UNIX & packet?  
To: packet-radio@ucsd.edu

gary@ke4zv.uucp (Gary Coffman) writes:

```
>Some of us are using UNIX hosts for packet, but it's not completely
>simple.
```

Amen, Gary.

```
>The *best* practical solution is to install a DOS box running KA9Q
>code as a *gateway* between your ethernet and the radio network.
>Since this code understands radio and ethernet networks, and is
```

>configurable as a router, it will allow you to use your native  
>TCP/IP on your UNIX machine to best advantage. It has source  
>quench capabilities to keep the packet storms off the radio and  
>it understands AX25. You won't be able to do link level only  
>AX25 connects from your UNIX host, so you'll be cut off from  
>the non-TCP/IP packet world, but the TCP/IP parts will work  
>correctly. You can move to the DOS box keyboard to do link  
>level only connections to BBS systems and keyboarders because  
>KA9Q code supports both types of sessions, and it can handle  
>multiple instances because it is itself a lightweight multitasker.  
>This is the method I use to get my UNIX box on the air.

After trying both a version of KA9Q for Unix, and a separate box, I agree with Gary's comments here. It's much easier to get the router working than to make a commercial TCP/IP work properly over the air.

Only one minor correction/clarification though -- it is possible to do non-tcp/ip packet from the unix system in this environment, if you don't mind an extra step. You can telnet from the Unix box to the KA9Q box, and with appropriate permissions set you will get the KA9Q mailbox prompt, which will permit you to do outgoing ax.25, netrom, or telnet (but this is silly if you're already telnetting in...) connections. I do this all the time from work (on lunch hour, of course) by dialing into the unix box by phone, telnetting to KA9Q on the pc,, and then doing an ax.25 connect to the local BBS station.

John

--

John R. Ackermann, Jr.                      Law Department, NCR Corporation, Dayton, Ohio  
(513) 445-2966                              John.Ackermann@daytonoh.ncr.com  
Packet Radio: ag9v@n8acv.oh                tcp/ip: ag9v@ag9v.ampr [44.70.12.232]

-----  
Date: 30 Mar 1993 23:54:39 GMT  
From: ucsd.edu!brian@network.UCSD.EDU  
To: packet-radio@ucsd.edu

References <1993Mar30.162731.6508@ke4zv.uucp>, <1pa94j\$2i5@agate.berkeley.edu>,  
<1993Mar30.231415.4447@qualcomm.com>  
Subject : Re: Using UNIX & packet?

karn@servo.qualcomm.com (Phil Karn) writes:

>Note that this is inherently limited by the facilities of "raw" AX.25.  
>Since there is no "portnumbering" facility in AX.25 analogous to TCP,  
>you can only have one connection per station pair in AX.25.

I have gotten around this by using the SSID as a "port" in my experiments with AX.25 under 386BSD. When a process creates a listen socket, it specifies in the AX\_ADDR structure both the callsign and SSID it will listen as, which allows you to (for example) have your callbook command interpreter available for connection as KA9Q-14, your BBS as KA9Q-2, and your discard server as K5ZC-1. If no process is listening on a particular AX "port", connection attempts are ignored - with the exception of the default port address.

Additionally, the system is given a default AX\_ADDR per port which is used when it makes AX.25 stream connections incidental to transporting higher level protocols, such as IP and net/rom. If no process is listening for stream (non-encapsulated) data on that address, the connection will still be accepted, but stream data will be silently discarded. I may change that to reply with a simple canned message. Because of the extraordinarily short-sighted design of AX.25, there is no good answer to this problem.

Once I get routing working to my satisfaction, or I get totally disgusted with the whole project, I'll be making the code available.

More details on the ham-bsd@ucsd.edu list, but only if you're into unix kernel hacking.

- Brian

-----  
Date: Tue, 30 Mar 1993 23:14:15 GMT  
From: qualcom.qualcomm.com!servo.qualcomm.com!karn@network.UCSD.EDU  
To: packet-radio@ucsd.edu

References <1993Mar29.154951.28974@sco.com>, <1993Mar30.162731.6508@ke4zv.uucp>, <1pa94j\$2i5@agate.berkeley.edu>  
Subject : Re: Using UNIX & packet?

In article <1pa94j\$2i5@agate.berkeley.edu> marc@remarque.berkeley.edu (Marc DeGroot) writes:

>There is an AX.25 driver available somewhere on the net (try ucsd.edu)  
>for Sun boxes. You link it into the kernel and it runs. My understanding  
>is that it talks straight to a KISS TNC, though I haven't played with it  
>myself.

Note that this is inherently limited by the facilities of "raw" AX.25. Since there is no "portnumbering" facility in AX.25 analogous to TCP, you can only have one connection per station pair in AX.25. Even if your users don't really care about multiple sessions to the same host, the ability to support them anyway is handy. It makes your system inherently robust in the presence of half-open connections and long

network outages, without having to rely on keepalives ("makedeads") to close down half-open connections. With TCP, you can easily tolerate lots of half-open connections if you have to, as each one is just some ram in a table (or better yet, just virtual memory pages on a disk).

>>The \*best\* practical solution is to install a DOS box running KA9Q  
>>code as a \*gateway\* between your ethernet and the radio network.

Absolutely.

Phil

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